



PLANNING, DEVELOPMENT  
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David Welwood  
File: D18-20/7/16701 WOO

May 6, 2021

Jeremy Vink,  
Manager of Planning  
Township of Woolwich  
24 Church Street West  
Elmira, ON N3B 2Z6

Dear Mr. Vink,

**Re: Regional Comments on Noise Mitigation Measures  
Plan of Subdivision Application 30T-16701  
And Zoning By-law Amendment 6/2016  
Hawk Ridge Homes Inc.  
36-68 Union Street, Elmira  
TOWNSHIP OF WOOLWICH**

The Region has completed its review of the revised Noise Feasibility Study submitted in support of the above-noted plan of subdivision, ("36-68 Union Street, Hawk Ridge Homes Development, Elmira, Ontario, Land Use Planning Noise Feasibility Assessment, RWDI File 1502121, by RWDI, dated February 12, 2021).

Regional staff then engaged HGC Engineering Limited to undertake a peer review of the revised Noise Study (the Noise Study), which was received on March 19, 2021. The Peer Review comments that:

1. The results of the peer review confirm the adequacy of the assumptions, premises and calculations on which the study's conclusions are based, with the following clarifications:
  - The zone of influence for rail vibration is 75 m from the railway right of way not 15 m as referred to in the report, although that is not pertinent to the current situation.

- Section 4.2 Results (pg. 8): Paragraph 2 summarizing Table 9 incorrectly notes that three (3) of the representative receptors comply with Class 2 Nighttime Impulse Noise Criteria. In reviewing Table 9 which contains minor errors in the second last column, all five (5) of the receptors exceed the Class 2 Nighttime Impulse Noise Criteria by 4 to 7 dBAI.
2. The subject lands, being vacant, meet the requirements for a Class 4 designation given in NPC-300 and the Municipality could consider such a designation in this case.
  3. The neighbouring industries are currently regulated through their Environmental Compliance Approvals (ECA's) from the MECP to ensure that their sound emissions do not exceed Class 2 sound level limits on the subject lands. Re-designating these lands to Class 4 would give industry the opportunity to amend their ECA's to meet the Class 4 sound level limits on the subject lands, effectively allowing for some increase in their noise emission limits.

The peer review has provided 3 approaches to address the compatibility issue. In general these are: 1) accept the recommendations of the RWDI report to designate the subject lands as Class 4 acoustical environment; 2) designate only those portions of the land with significant excesses as Class 4; or 3) leave as Class 2 but allow for the excess impulse noise during the nighttime period.

For land use planning matters, the MECP has designated approval authority to the Municipality to determine the appropriate approach. As per the attached Peer Review, Regional staff has considered the 3 approaches above and support the approach of designating the subject lands to Class 4 with the use of a Type F warning clause, as recommended in the RWDI study.

As per NPC-300, it is recommended that nearby industries be advised of this decision.

## **Noise Study Implementation**

### Zoning By-law Amendment

Staff recommends the proposed zoning by-law amendment contain provisions to recognize the Class 4 acoustical environment designation as outlined in the Ministry of the Environment, Conservation and Parks' NPC-300 environmental noise guideline. Such provision should recognize the following:

The lands are classified as a Class 4 Area as defined by the Ministry of the Environment, Conservation and Parks' NPC-300 Environmental Noise Guideline, that dwellings shall incorporate receptor-based and architectural noise control measures, including the following:

- All dwelling units on Lots 1 to 36, all inclusive, be installed with a central air conditioning system;
- The architectural design of all dwelling units constructed within Lots 4, 13, 22, 31, and 36 do not contain windows associated with a noise sensitive space along the east façade facing Union Street;
- The exterior building façade facing Union Street and rear façade for dwellings on Lots 4, 13, 22, 31 and 36 be constructed with EW-5 brick veneer; and
- Three (3) 2.43 metre (8 ft.) high noise attenuation walls and returns be constructed as follow:
  - i) along the east property line of Lot 13 adjacent to Union Street,
  - ii) along the east property line of Lot 22 and Lot 31 adjacent to Union Street,
  - iii) along the east property line of Lot 36 adjacent to park Block 38 and along the entire north property line adjacent to open space Block 39

#### Conditions of Draft Approval

Staff recommends the noise related conditions of draft approval outlined in the Region’s comments of September 2, 2020 on the previous Noise Study be replaced in their entirety with the following new conditions of draft approval:

- 1) Prior to registration of all or any part of the subdivision plan, the Developer enter into an agreement with the Township of Woolwich to provide that any dwelling unit constructed within the plan not be occupied until such time as confirmation is received from HBK United Custom Woodworks that an upgraded silencer has been installed on the air return located inside the HBK facility prior to occupancy of the first residential unit within the plan, or at the discretion of the Township’s Chief Building Official in consultation with the Township’s Director of Development Services and the Region of Waterloo.
- 2) Prior to registration of all or any part of the subdivision plan, the Developer enter into an agreement with the Township of Woolwich to implement the recommendations of the Noise Study entitled, “36-68 Union Street, Hawk Ridge Homes Development, Elmira, Ontario, Land Use Planning Noise Feasibility Assessment” (RWDI AIR Inc., February 12, 2021). Without limiting the foregoing, recommended noise mitigation as per Figures 2 (Receptor Locations) and 3 (Acoustic Barriers) of the Report include the following:
  - a) that all residential units constructed on Lots 1 to 36, all inclusive, be fitted with a forced air-ducted heating system and a central air conditioning system;
  - b) that three (3) 2.43 metre (8 ft.) high noise attenuation walls and returns as per Figure 3 of the Report be constructed as follows:

- i) along the east property line of Lot 13 adjacent to Union Street;
  - ii) along the east property line of Lot 22 and Lot 31 adjacent to Union Street;
  - iii) along the east property line of Lot 36 adjacent to park Block 38 and along the entire north property line adjacent to open space Block 39;
- c) that a wood privacy fence be constructed along the common property lines of residential Lots 10, 11, 12 and 13 with commercial Block 37 in accordance with Township policies and procedures. (This should also be addressed at the site plan control stage.)
- d) that the architectural design of all residential units constructed within Lots 4, 13, 22, 31 and 36 do not contain windows associated with a noise sensitive space along the east façade facing Union Street;
- e) that the exterior building façade facing Union Street and rear façade for residential Lots 4, 13, 22, 31 and 36 be constructed with EW-5 brick veneer;
- f) that the noise attenuation walls in 2b) above be constructed:
- i) 0.15 metres off-set from the property line within the respective Lots,
  - ii) within one (1) year of the first building permit issued for either of Lots 13, 22, 31 or 36, and
  - iii) with a minimum surface density of 20 kg/m<sup>2</sup>, and without holes or gaps. Any gaps under the noise attenuation wall required for drainage purposes shall be minimized and localized where possible;
- g) that a) to f) above be completed to the satisfaction of the Director of Development Services, Township of Woolwich.
- 3) Prior to registration of all or any part of the subdivision plan, the Developer will be required to:
- a) enter into an agreement with the Township of Woolwich that prior to construction of any noise attenuation barrier in Condition 2b) above, the Developer shall submit a Noise Wall Design Report in accordance with Section 7.2 of the Region of Waterloo Implementation Guideline for Noise Policies;
  - b) provide for security, the necessary financial resources equal to the cost of constructing the noise attenuation walls contained in Condition 2b) above;
  - c) that a), and b), above be completed to the satisfaction of the Director of Development Services, Township of Woolwich.

- 4) Prior to registration of all or any part of the subdivision plan, the Developer enter into an agreement with the Township of Woolwich for Lots 1 to 36, all inclusive, that the following clauses be included in all agreements of purchase and sale and/or rental agreements:

*“Purchasers/tenants are advised that the sound levels due to increasing road and rail traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks.”*

*“This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks.”*

*“Purchasers/tenants are advised that the dwelling is located in an area classified as a Class 4 area, as defined in the Ministry of the Environment, Conservation and Parks’ Publication NPC-300 – Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning.”*

*“Purchasers/tenants are advised that sound levels due to the adjacent industries are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation / air conditioning system which will allow windows and exterior doors to remain closed.”*

*“Purchasers/tenants are advised that due to the proximity of the adjacent rail spur and industries, noise from shunting and industries may at times be audible.”*

*“Purchasers/tenants are advised that due to the proximity of the adjacent industries, odour and/or dust from these industries may occasionally cause concern for some individuals.”*

- 5) Prior to registration of all or any part of the subdivision plan, the Developer enter into an agreement with the Township of Woolwich for Lots 13, 22, 31, and 36 all inclusive, to provide for the following maintenance clause for the noise wall:

*“The purpose of the noise attenuation wall in Clause 2b) above is to attenuate noise from Union Street and adjacent industrial activities. The Developer will be responsible to preserve the function of the noise attenuation wall located on private lands. The Developer agrees that the Township, through its employees and agents has the right to enter on the lands to inspect the noise wall. The Developer agrees to repair or, if necessary, replace the noise wall. Should the Developer fail to repair or replace the noise wall, as the Township deems necessary, upon receipt of a written notice from the Township, the Developer agrees that the Township may undertake such works upon the expiration of the time set out in the notice. If such work is undertaken by the Township, the Developer hereby agrees to permit entry*

*upon the lands for this purpose and agrees to reimburse the Township fully for all the costs of undertaking such work."*

If you have any questions please don't hesitate to contact the undersigned.

Yours truly,

A handwritten signature in blue ink that reads "Dave Welwood". The signature is written in a cursive, flowing style.

David Welwood, MCIP, RPP  
Principal Planner

cc. Arlene Beaumont, W.E. Oughtred & Associates Inc. (e-mail only)

Appendix 'A'

Final Peer Review of Revised Noise Feasibility Study

March 19, 2021

**David Welwood, Principal Planner**  
Region of Waterloo  
150 Frederick St, 8th floor  
Kitchener, ON  
N2G 4J3

Sent Via Email: [Dwelwood@regionofwaterloo.ca](mailto:Dwelwood@regionofwaterloo.ca)

**Ref: Peer Review, "36-68 UNION STREET, HAWK RIDGE HOMES DEVELOPMENT  
ELMIRA, ONTARIO, LAND USE PLANNING NOISE FEASIBILITY ASSESSMENT"  
Dated February 12, 2021, Prepared by RWDI Air Inc.**

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Dear Mr. Welwood,

As you requested we have reviewed the above referenced report with regard past review comments and NPC-300 "Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning" which is the applicable Ontario Ministry of the Environment Conservation and Parks (MECP) assessment guideline for noise control in land use planning.

We note that the latest revision of the report considers the implementation of reasonable noise mitigation measures into the design of the proposed residential development and contains a revised analysis based current topographical data and a reasonable worst case operational scenario with regard to rail impulse sound levels.

The report concludes that the proposed residential development is feasible with regard to road, rail and industrial (stationary) noise with the implementation of noise warning clauses and consideration of conditions related to noise mitigation in the MECP Environmental Compliance Approvals for the nearby industries.

The report also concludes that rail impulse noise will meet the MECP Class 2 criteria over much of the subject lands, but may exceed the MEPC Class 2 criteria at locations nearest the rail activity, best efforts of the rail operator for quiet shunting notwithstanding.

To address this potential excess the report recommends that the subject lands be given a Class 4 designation which allows for higher levels of stationary and impulsive noise to be present on the subject lands than allowed by the current Class 2 (semi-urban) designation.

We offer the following comments.

1. The results of our review confirm the adequacy of the assumptions, premises and calculations on which the study's conclusions are based with the following clarifications.

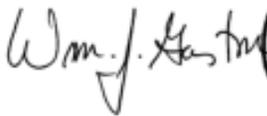
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2. The subject lands, being vacant, meet the requirements for a Class 4 designation given in NPC-300 and the Municipality could consider such a designation in this case.
  3. The neighbouring industries are currently regulated through their Environmental Compliance Approvals (ECA's) from the MECP to ensure that their sound emissions do not exceed Class 2 sound level limits on the subject lands. Redesignating these lands to Class 4 would give industry the opportunity to amend their ECA's to meet the Class 4 sound level limits on the subject lands, effectively allowing for some increase in their noise emission limits.

As this is a land use planning matter, the MECP has designated approval authority to the Municipality. We have the following suggestions for the Municipality to consider going forward based on past experience in other municipalities.

1. Accept the recommendations in the RWDI study including the designation of the subject lands to Class 4 with use of the Type F warning clause.
2. Designate only those portions of the subject lands at which a significant excess is predicted to Class 4 with the use of the Type F warning clause.
3. Leave the Class 2 designation in place over the entire site and allow for an increase in the nighttime Class 2 criteria from 45 to 52 dBAI with the use of the Class 2 (Type E) warning clause. Consider also including the Type F warning clause specific to rail impulse noise.
4. Inform the rail authority and industries of the decision.

Thank you for the opportunity to provide this information. We trust this is sufficient for the present purposes.

Yours truly,  
Howe Gastmeier Chapnik Limited


Bill Gastmeier, MAsc, PEng  
Principal

